



[4910-13]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 23**

**[Docket No. CE308; Special Conditions No. 23-248-SC]**

**Special Conditions:** Cirrus Design Corporation Model SF50 Airplane; Function and Reliability Testing; Withdrawal.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final special conditions; withdrawal.

#### **SUMMARY:**

The FAA is withdrawing a previously published notice granting special conditions for the Cirrus Design Corporation model SF50 airplane. We are withdrawing Special Condition No. 23-248-SC through mutual agreement with Cirrus Design Corporation.

**DATES:** This special condition published on August 18, 2010 at 75 FR 50853 is withdrawn, effective **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**FOR FURTHER INFORMATION CONTACT:** J. Lowell Foster, Federal Aviation Administration, Small Airplane Directorate, Aircraft Certification Service, 901 Locust, Room 301, Kansas City, MO 64106; telephone (816) 329-4125; facsimile (816) 329-4090.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

On August 18, 2010, the FAA published Special Condition No. 23-248-SC for the Cirrus Design Corporation new model SF50 “Vision” Jet. The SF50 is a low-wing, five-plus-two-place (2 children), single-engine turboprop-powered aircraft. It incorporates an Electronic Flight

Information System (EFIS), pressurized cabin, retractable gear, and a V-tail. The turbofan engine is mounted on the upper fuselage/tail cone along the aircraft centerline. It is constructed largely of carbon and fiberglass composite materials. Like other Cirrus products, the SF50 includes a ballistically deployed airframe parachute.

The model SF50 has a maximum operating altitude of 28,000 feet, where it cruises at speeds up to 300 Knots True Air Speed (KTAS). Its  $M_{MO}$  will not exceed 0.62 Mach. The maximum takeoff weight will be at or below 6000 pounds with a range at economy cruise of roughly 1000 nm. Cirrus intends for the model SF50 to be certified for single-pilot operations under 14 CFR part 91 and 14 CFR part 135 operating rules. The following operating conditions will be included:

- Day and Night VFR
- IFR
- Flight Into Known Icing

### **Discussion**

Before Amendment 3-4, Section 3.19 of Civil Air Regulation (CAR) part 3 required service testing of all airplanes type certificated on or after May 15, 1947. The purpose of the testing was to “ascertain whether there is reasonable assurance that the airplane, its components, and equipment are reliable, and function properly.”

Amendment 3-4 to CAR part 3 became effective January 15, 1951, and deleted the service test requirements in Section 3.19 for airplanes of 6,000 pounds maximum weight or less. The introductory text published in Amendment 3-4 explained that most of the significant changes in the amendment stemmed from “the desire for simplification of the rules in this part with respect

to the smaller airplanes, specifically those of 6,000 pounds maximum weight or less, which would be expected to be used mainly as personal airplanes.” The introductory material also stated the service test requirement was removed for airplanes of 6,000 pounds maximum weight or less because “experience seems to indicate that this rule imposes a burden upon the manufacturers not commensurate with the safety gained.” The requirement for Function and Reliability (F&R) testing, and the exception for airplanes of 6,000 pounds or less maximum weight, is now found in 14 CFR part 21, section 21.35(b)(2).

The decision to exempt airplanes of 6,000 pounds maximum weight or less from F&R testing was based on the state of technology envisioned in 1951. At that time, airplanes of 6,000 pounds maximum weight or less were expected to be used mainly as personal airplanes. They used simple, “stand-alone” systems whose failure was more likely to be an inconvenience than an accident. The situation is different today. Technological advances allow airplanes weighing less than 6,000 pounds to be more complex and integrated than some transport airplanes. New part 23 airplanes can incorporate sophisticated equipment not previously used in a part 23 aircraft. Additionally, part 23 airplanes are being used for business and commercial transportation. They should no longer be envisioned mainly as personal airplanes. Therefore, a special condition to require F&R testing for airplanes weighing 6,000 pounds or less is needed where the level of sophistication is beyond evaluating failures by inspection.

The model SF50 certification project was granted an extension on September 19, 2011. 14 CFR part 21, Amendment 95, published in the Federal Register (76 FR 64229) on October 18, 2011, incorporated Special Condition No. 23-248-SC. On December 11, 2012, Cirrus Design Corporation elected to adjust the model SF50 certification basis to Amendment 21-95.

**Reason for Withdrawal**

The FAA is withdrawing Special Condition No. 23-248-SC because Cirrus elected to revise the model SF50 certification basis to Amendment 21-95.

The authority citation for this Special Condition withdrawal is 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.17; and 14 CFR 11.38 and 11.19.

**Conclusion**

Withdrawal of this special condition does not preclude the FAA from issuing another notice on the subject matter in the future or committing the agency to any future course of action.

Issued in Kansas City, Missouri on June 7, 2013.

Earl Lawrence  
Small Airplane Directorate  
Aircraft Certification Service

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